

Melbin 9555

## Lab 6 Postlab.

Q1] What is the difference between  $A^*$  and  $AO^*$  algorithm?

Ans]  $A^*$  algorithm:

$A^*$  is a heuristic search algorithm that finds the shortest path from a starting node to a target node in a weighted graph, where the weight of each edge represents the cost of moving from one node to another.

$AO$  algorithm:

$AO^*$  is an extension of the  $A^*$  algorithm designed to handle situations where the heuristic function is not accurate.

Q2] Why  $AO^*$  algorithm only works when heuristic values are undermined?

- Ans]
- (i) Requirement for optimality.
  - (ii) Underestimation and optimality.
  - (iii) Anytime optimality with Monotonicity.